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CURRENT INDUSTRIAL REPORTS

Manufacturers' Shipments, Inventories, and Orders

January 1970

U.S. DEPARTMENT OF COMMERCE / Bureau of the Census



FOR RELEASE: March 4, 1970

New orders for manufactured products in January declined \$1.5 billion to \$53.8 billion, after seasonal adjustment, the Bureau of the Census, U.S. Department of Commerce, announced today. This 2.8 percent decline in new orders continued the declines of the last two months. Shipments at \$55.2 billion declined \$100 million from December. The backlog of unfilled orders at \$88.3 billion declined \$1.4 billion from December. Manufacturers' inventories continued to rise with an increase of \$300 million or 0.3 percent to a total of \$96.2 billion from \$95.9 billion at the end of December. The inventories to shipments ratio increased slightly to 1.74 in January from 1.73 in December since inventories increased while shipments decreased slightly.

For the 3 months ending in January, the average monthly change in new orders was a decrease of 1.9 percent compared with an increase of 0.7 percent for the 3 months ending in October and an increase of 0.7 percent for the 3 months ending in July. The average monthly change in new orders for the last 12 months has been an increase of 0.1 percent.

NEW ORDERS

New orders for durable goods declined \$1.6 billion or 5.2 percent from the December total of \$30.3 billion (revised). In the transportation industry, new orders declined \$800 million as both the aerospace and automotive segments declined. New orders in the electrical machinery industry declined \$500 million, reflecting a significant drop in the communications industry. The fabricated metals industry declined \$300 million to \$3.0 billion, but the primary metals industry remained virtually unchanged at \$4.8 billion.

Among the supplementary series, household durables (formerly titled consumer durables) at \$1.9 billion and machinery and equipment (producers' capital goods) at \$6.4 billion each declined \$100 million from December. New orders for defense products declined \$200 million to \$1.9 billion in January from \$2.1 billion in December. (SEE CHART 1)

Chart 1 - Manufacturer's New Orders (Seasonally Adjusted)

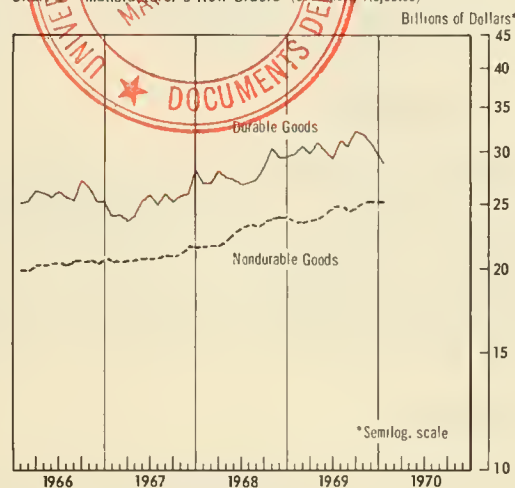
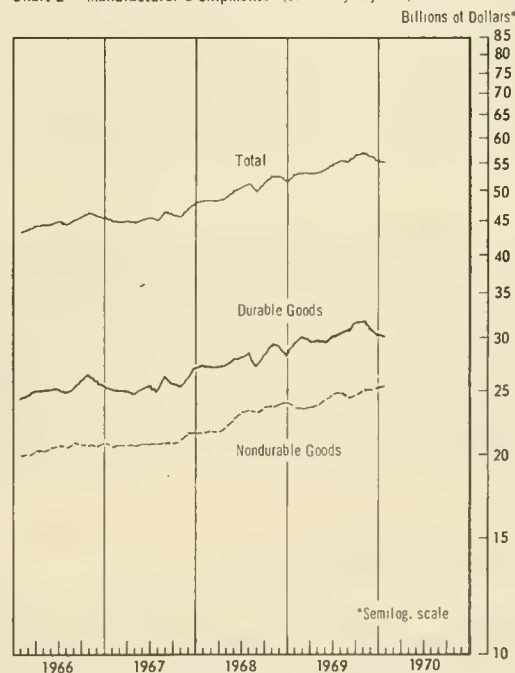


Chart 2 - Manufacturer's Shipments (Seasonally Adjusted)



SHIPMENTS

A decrease of \$200 million in the shipments of durable goods to \$30.0 billion in January was partially offset by an increase in the shipments of nondurables of \$100 million to \$25.2 billion. Changes in shipments of durable goods were mixed across industry lines as increases of \$200 million in primary metals and \$400 million in nonelectrical machinery were offset by an \$800 million decline in transportation. Although all segments of the transportation industry shared in the decline, the aerospace sector led the decline. The pattern in nondurable goods was also mixed as decreases in foods and chemicals were more than offset by increases in other nondurable goods industries. (SEE CHART 2)

UNFILLED ORDERS

Unfilled orders of durable goods at \$85.4 billion were \$1.3 billion or 1.5 percent below the backlog at the end of December. Declines in backlog were general. The backlog of orders in primary metals declined \$300 million to \$7.4 billion at the end of January, and the backlog of transportation equipment declined \$600 million to \$31.0 billion from \$31.6 billion at the end of December. (SEE CHART 3)

INVENTORIES

Inventories in the durable goods industries increased \$400 million to \$64.0 billion from \$63.6 billion in December, but those in the nondurable goods industries decreased \$200 million to \$32.2 billion at the end of January. The dollar gains in stocks of durables were widespread whereas the pattern was mixed among the nondurable goods industries. Increases occurred in all stages of fabrication although work-in-process inventories accounted for almost \$200 million of the overall rise of \$300 million.

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industry categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Chart 3 – Manufacturer's Unfilled Orders (Seasonally Adjusted)

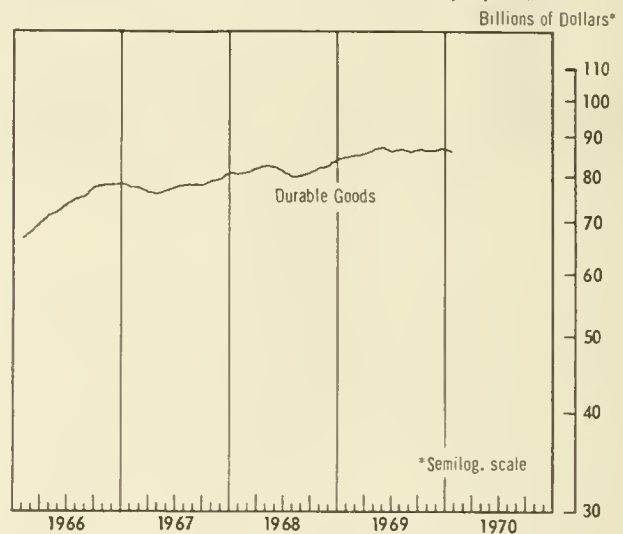
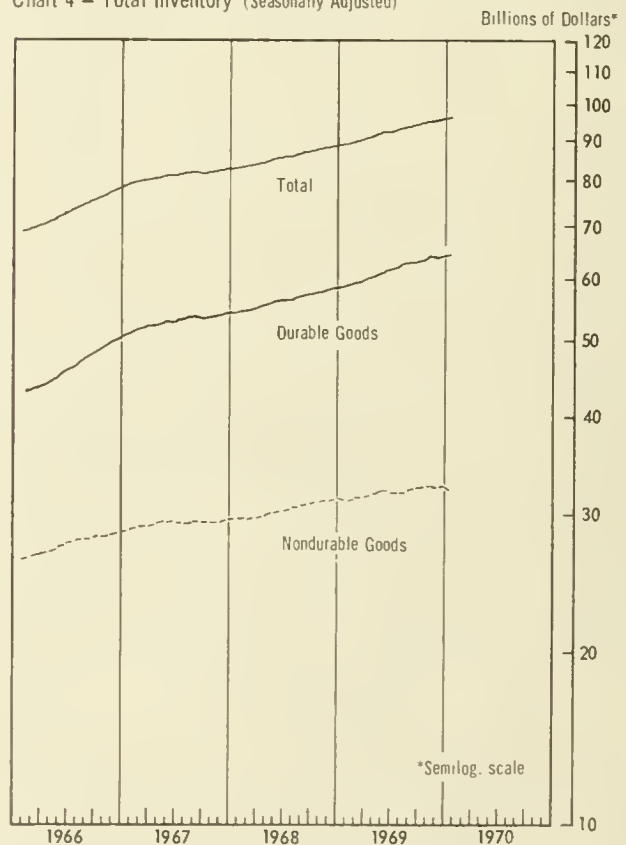


Chart 4 – Total Inventory (Seasonally Adjusted)



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Attachment

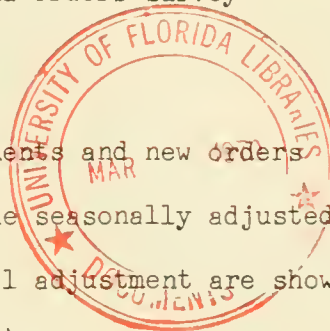



U.S. DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, D.C. 20233

NOTICE

Manufacturers' Shipments, Inventories and Orders Survey
January 1970

The January 1969 data in table 1 for shipments and new orders and in tables 2 and 5 for all items are the seasonally adjusted figures. The correct data without seasonal adjustment are shown in the February 1969 report Series M3-1(69)-2.





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Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1970 ^P	Dec. 1969 ^r	Nov. 1969 ^r	Jan. 1970 ^P	Dec. 1969 ^r	Jan. 1969	Jan. 1970 ^P	Dec. 1969 ^r	Nov. 1969 ^r	Jan. 1970 ^P	Dec. 1969 ^r	Jan. 1969
	Shipments						Total inventories					
All manufacturing industries:												
Total.....	55,185	55,277	55,988	51,642	53,914	52,801	96,165	95,905	95,416	96,379	95,475	89,179
Total, excluding transportation.....	48,394	47,684	48,068	45,002	45,864	45,517	80,552	80,344	80,028	80,722	79,989	75,052
Durable goods industries, total.....	30,012	30,201	30,944	27,861	30,067	29,325	63,984	63,550	63,076	63,852	63,106	57,789
Stone, clay, and glass products.....	1,500	1,485	1,459	1,270	1,335	1,414	2,488	2,483	2,471	2,493	2,431	2,293
Primary metals, total.....	5,109	4,945	5,013	4,906	4,651	4,508	8,170	8,052	8,009	8,282	8,244	7,633
Blast furnaces, steel mills.....	2,462	2,354	2,338	2,354	2,121	2,089	4,330	4,312	4,272	4,439	4,502	4,120
All other primary metals.....	2,647	2,591	2,675	2,552	2,530	2,419	3,840	3,740	3,737	3,843	3,742	3,513
Fabricated metal products, total.....	3,262	3,259	3,180	2,927	3,142	2,961	6,765	6,613	6,550	6,668	6,430	6,204
Metal cans, barrels, and drums.....	333	303	295	266	236	306	758	665	681	712	595	609
Machinery, except electrical, total.....	5,605	5,228	5,471	5,080	5,319	5,222	13,210	13,180	13,080	13,241	13,142	11,561
Engines and turbines.....	467	460	388	356	544	434	982	983	983	985	967	859
Farm machinery and equipment.....	492	453	467	458	393	454	946	944	940	980	961	963
Construction, mining, and material handling equipment.....	793	651	670	709	598	679	2,225	2,245	2,210	2,254	2,268	1,990
Metalworking machinery.....	358	312	330	320	342	345	1,112	1,123	1,096	1,108	1,101	1,012
General industrial machinery.....	528	507	528	476	490	454	1,109	1,102	1,084	1,103	1,099	971
Electrical machinery, total.....	3,536	3,609	3,739	3,284	3,699	3,620	9,460	9,346	9,327	9,306	9,193	8,422
Electrical transmission and distribution equipment and industrial apparatus.....	650	659	706	587	668	685	1,948	1,943	1,919	1,951	1,940	1,791
Household appliances, including radio and TV.....	669	671	694	607	658	755	2,168	2,084	2,135	2,101	2,016	1,808
Communication equipment.....	1,076	1,092	1,084	990	1,163	1,037	2,802	2,774	2,741	2,751	2,727	2,530
Transportation equipment, total.....	6,791	7,593	7,920	6,640	8,050	7,284	15,613	15,561	15,388	15,657	15,486	14,127
Motor vehicles and parts.....	3,641	3,735	4,044	3,701	3,865	4,117	4,186	4,156	4,063	4,261	4,181	4,385
Aircraft, missiles, and parts.....	2,566	3,133	3,200	2,403	3,465	2,595	9,502	9,547	9,425	9,468	9,460	8,110
Instruments and related products.....	1,170	1,142	1,186	1,035	1,213	1,089	2,449	2,476	2,434	2,399	2,420	2,193
All other durable goods industries.....	3,039	2,940	2,976	2,719	2,658	3,227	5,829	5,839	5,817	5,806	5,760	5,356
Nondurable goods industries, total.....	25,173	25,076	25,044	23,781	23,847	23,476	32,181	32,355	32,340	32,527	32,369	31,390
Food and kindred products, total.....	8,463	8,624	8,390	8,099	8,414	7,669	7,231	7,230	7,302	7,448	7,506	7,490
Meat products.....	1,774	1,772	1,780	1,765	1,790	1,661	806	804	761	849	775	721
Tobacco products.....	458	438	436	415	431	414	2,165	2,200	2,233	2,302	2,279	2,359
Textile mill products.....	1,785	1,745	1,774	1,633	1,647	1,790	3,448	3,501	3,447	3,439	3,417	3,500
Paper and allied products, total.....	2,311	2,283	2,292	2,202	2,187	2,172	2,655	2,632	2,614	2,620	2,613	2,370
Pulp, paper, etc.....	957	1,001	973	921	959	899	1,032	1,017	1,037	1,024	1,024	934
Chemicals and allied products, total.....	4,073	4,110	4,255	3,880	3,670	3,935	6,591	6,634	6,566	6,674	6,635	6,060
Industrial chemicals, except pigments... ..	1,426	1,432	1,453	1,340	1,310	1,323	2,266	2,286	2,249	2,311	2,300	2,059
Petroleum and coal products.....	2,233	2,140	2,155	2,190	2,128	1,894	2,283	2,274	2,197	2,260	2,262	2,047
Rubber and plastics products, n.e.c.....	1,365	1,365	1,449	1,287	1,317	1,301	1,927	1,888	1,871	1,936	1,882	1,818
All other nondurable goods industries.....	4,485	4,371	4,293	4,075	4,053	4,301	5,881	5,996	6,110	5,848	5,775	5,746
	New orders						Unfilled orders					
All manufacturing industries:												
Total.....	53,826	55,362	56,242	51,235	53,424	53,119	88,349	89,714	89,583	88,008	88,412	87,126
Total, excluding transportation.....	47,629	48,367	47,813	45,148	46,291	45,632	57,339	58,109	57,383	56,987	56,839	53,232
Durable goods industries, total.....	28,727	30,295	31,188	27,514	29,612	29,684	85,377	86,668	86,530	85,098	85,445	84,150
Primary metals, total.....	4,793	4,760	4,751	4,927	4,683	4,675	7,408	7,726	7,909	7,524	7,501	6,596
Blast furnaces, steel mills.....	2,086	2,007	2,190	2,241	2,044	2,124	3,544	3,921	4,267	3,651	3,764	3,229
Fabricated metal products.....	3,038	3,384	3,276	2,998	3,153	2,755	10,631	10,854	10,684	10,518	10,446	9,799
Machinery, except electrical, total.....	5,458	5,548	5,453	5,146	5,506	5,350	17,096	17,243	16,926	17,055	16,993	14,885
Engines and turbines.....	535	619	389	428	651	494	4,886	4,820	4,661	4,851	4,781	4,099
Construction, mining, and material handling equipment.....	768	677	692	737	619	696	2,178	2,204	2,178	2,155	2,127	1,715
Metalworking machinery.....	319	264	341	299	287	340	1,758	1,797	1,846	1,758	1,779	1,747
General industrial machinery.....	502	576	510	480	541	472	1,663	1,689	1,620	1,646	1,643	1,482
Electrical machinery, total.....	3,622	4,110	3,619	3,342	4,045	3,581	13,597	13,512	13,013	13,461	13,401	13,035
Electrical transmission and distribution equipment and industrial apparatus.....	665	826	688	605	820	627	3,523	3,508	3,342	3,496	3,477	3,249
Household appliances, including radio and TV.....	658	694	622	634	658	745	582	593	570	577	550	573
Communication equipment.....	1,067	1,402	1,111	970	1,346	1,020	5,555	5,564	5,255	5,533	5,553	5,492
Transportation equipment, total.....	6,197	6,995	8,429	6,087	7,133	7,487	31,010	31,605	32,200	31,021	31,573	33,894
Aircraft, missiles, and parts.....	2,060	2,728	3,279	2,444	2,744	2,690	23,706	24,212	24,615	23,704	24,163	26,954
All other durable goods industries.....	5,619	5,498	5,660	5,014	5,092	5,836	5,635	5,728	5,798	5,519	5,531	5,941
Nondurable goods industries, total.....	25,099	25,067	25,054	23,721	23,812	23,435	2,972	3,046	3,053	2,910	2,967	2,976
Industries with unfilled orders.....	6,926	6,804	6,853	6,493	6,542	6,494	2,972	3,046	3,053	2,910	2,967	2,976
Industries without unfilled orders.....	18,173	18,263	18,201	17,228	17,270	16,941	-	-	-	-	-	-

- Represents zero. ^PPreliminary. ^rRevised.¹Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1970 ^P	Dec. 1969 ^R	Nov. 1969 ^R	Jan. 1970 ^P	Dec. 1969 ^R	Jan. 1969	Jan. 1970 ^P	Dec. 1969 ^R	Nov. 1969 ^R	Jan. 1970 ^P	Dec. 1969 ^R	Jan. 1969
	Shipments						Total inventories					
All manufacturing industries, total..	55,185	55,277	55,988	51,642	53,914	52,801	96,165	95,905	95,416	96,379	95,475	88,905
Durable goods industries, total.....	30,012	30,201	30,944	27,861	30,067	29,325	63,984	63,550	63,076	63,852	63,106	57,879
Nondurable goods industries, total.....	25,173	25,076	25,044	23,781	23,847	23,476	32,181	32,355	32,340	32,527	32,369	31,026
Industry groups arranged by market categories:												
Home goods and apparel.....	4,489	4,505	4,354	3,989	4,002	4,849	9,826	9,922	9,988	9,698	9,562	9,360
Consumer staples.....	10,875	11,035	10,827	10,343	10,696	9,945	12,113	12,084	12,152	12,413	12,381	11,696
Equipment and defense products, except automotive.....	9,130	9,146	9,459	8,277	9,682	8,764	25,879	25,865	25,587	25,791	25,639	22,475
Automotive equipment.....	4,212	4,332	4,647	4,230	4,395	4,642	5,305	5,277	5,157	5,412	5,304	5,281
Construction materials, supplies, and intermediate products.....	4,554	4,537	4,595	3,864	4,152	4,444	8,018	8,001	7,939	7,989	7,870	7,538
Other materials and supplies and intermediate products.....	21,925	21,722	22,106	20,939	20,987	20,157	35,024	34,756	34,593	35,076	34,719	32,555
Supplementary series: ²												
Household durable goods industries.....	1,943	1,984	1,951	1,770	1,852	2,153	5,167	5,092	5,166	5,084	4,965	4,579
Machinery and equipment industries.....	6,386	6,179	6,432	5,788	6,393	6,102	16,422	16,305	16,240	16,386	16,223	14,308
Defense products industries (old series).	3,930	4,518	4,549	3,658	4,905	3,971	13,146	13,204	13,056	13,057	13,049	11,571
Defense products (new series)*.....	1,804	2,284	2,244	1,681	2,473	1,875	7,512	7,472	7,615	7,461	7,387	7,227
	New orders						Unfilled orders					
All manufacturing industries, total..	53,826	55,362	56,242	51,235	53,424	53,119	88,349	89,714	89,583	88,008	88,412	87,469
Durable goods industries, total.....	28,727	30,295	31,188	27,514	29,612	29,684	85,377	86,668	86,530	85,098	85,445	84,431
Nondurable goods industries, total.....	25,099	25,067	25,054	23,721	23,812	23,435	2,972	3,046	3,053	2,910	2,967	3,038
Industry groups arranged by market categories:												
Home goods and apparel.....	4,442	4,528	4,283	3,996	3,965	4,816	1,963	2,017	2,000	1,939	1,939	2,186
Consumer staples.....	10,867	11,028	10,826	10,336	10,694	9,945						
Equipment and defense products, except automotive.....	8,855	9,570	10,021	8,138	9,636	9,043	48,121	48,515	48,128	47,961	48,193	47,649
Automotive equipment.....	4,095	4,297	4,773	4,140	4,342	4,710						
Construction materials, supplies, and intermediate products.....	4,154	4,490	4,708	3,812	4,024	4,333	10,485	10,886	10,888	10,325	10,378	10,169
Other materials and supplies and intermediate products.....	21,413	21,449	21,631	20,813	20,763	20,272	27,780	28,296	28,567	27,783	27,902	27,465
Supplementary series: ²												
Household durable goods industries.....	1,897	2,001	1,890	1,785	1,815	2,128	1,597	1,642	1,625	1,577	1,563	1,795
Machinery and equipment industries.....	6,379	6,490	6,696	5,956	6,535	6,204	25,117	25,126	24,818	24,961	24,794	22,242
Defense products industries (old series).	3,413	4,400	4,630	3,182	4,361	4,025	29,755	30,273	30,390	29,727	30,203	33,163
Defense products (new series)*.....	1,867	2,108	2,419	1,781	2,018	1,844	20,481	20,419	20,595	20,362	20,462	21,786

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there is no historical data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. ^PPreliminary. ^RRevised. ¹Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. ²The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Machinery and equipment industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, communication equipment and electronic components), shipbuilding and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the shipbuilding industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and shipbuilding. Thus, it differs from the old series in that it includes defense activity in shipbuilding and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1964-1969	
	Dec.-1969 Jan. 1970	Nov.- Dec. 1969 ^r	Oct.- Nov. 1969	3 months			12 months	Average rise	Average decline
				Oct. 1969- Jan. 1970	July 1969 Oct. 1969	April 1969 July 1969	Jan. 1969 Jan. 1970		
Shipments:									
All manufacturing industries.....	+0.2	-1.3	-1.8	-1.1	+1.0	+1.3	+0.4	+1.4	-1.1
Durable goods industries, total.....	-0.6	-2.4	-3.0	-2.0	+1.4	+1.1	+0.2	+1.9	-2.1
Nondurable goods industries, total.....	+0.4	+0.1	-0.3	+0.1	+0.4	+1.6	+0.6	+1.0	-0.5
Total inventories:									
All manufacturing industries.....	+0.3	+0.5	+0.5	+0.4	+0.6	+0.8	+0.6	+0.7	-0.1
New orders:									
All manufacturing industries.....	-2.8	-1.6	-1.2	-1.9	+0.7	+0.7	+0.1	+1.8	-1.5
Durable goods industries, total.....	-5.2	-2.9	-1.9	-3.3	+0.8	+0.2	-0.2	+3.1	-2.4
Nondurable goods industries, total.....	+0.1	+0.1	-0.3	0.0	+0.6	+1.4	+0.6	+1.1	-0.6
Unfilled orders:									
Durable goods industries, total.....	-1.5	+0.2	+0.3	-0.3	0.0	0.0	+0.1	+1.1	-0.6

Table 4.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio ¹ (months' backlog)			
	Jan. 1970 ^p	Dec. 1969 ^r	Nov. 1969 ^r	Jan. 1969	Jan. 1970 ^p	Dec. 1969 ^r	Nov. 1969 ^r	Jan. 1969
All manufacturing industries, total.....	1.74	1.73	1.70	1.68	2.58	2.62	2.57	2.68
Durable goods industries, total.....	2.13	2.10	2.04	1.97	3.13	3.16	3.09	3.22
Stone, clay, and glass products.....	1.66	1.67	1.69	1.62	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.60	1.63	1.60	1.67	1.45	1.56	1.58	1.44
Fabricated metals.....	2.07	2.03	2.06	2.12	3.63	3.33	3.70	3.73
Machinery, except electrical.....	2.36	2.52	2.39	2.21	3.05	3.30	3.09	2.86
Electrical machinery.....	2.68	2.59	2.49	2.36	3.85	3.74	3.48	3.64
Transportation equipment.....	2.30	2.05	1.94	1.93	6.71	4.16	5.88	7.17
Instruments and related products.....	2.09	2.17	2.05	2.06	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.28	1.29	1.29	1.32	0.42	0.45	0.45	0.47
Food and kindred products.....	0.85	0.84	0.87	0.95	(X)	(X)	(X)	(X)
Tobacco products.....	4.73	5.02	5.12	5.36	(X)	(X)	(X)	(X)
Textile mill products.....	1.93	2.01	1.94	1.96	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.15	1.15	1.14	1.11	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.62	1.61	1.54	1.52	(X)	(X)	(X)	(X)
Petroleum and coal products.....	1.02	1.06	1.02	1.09	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.41	1.38	1.29	1.39	(X)	(X)	(X)	(X)

(NA) Not available. ^pPreliminary. ^rRevised. (X) Not applicable.¹Excludes the following industries with no unfilled orders: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

Table 5.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1970 ^P	Dec. 1969 ^r	Nov. 1969 ^r	Jan. 1970 ^P	Dec. 1969 ^r	Jan. 1969	Jan. 1970 ^P	Dec. 1969 ^r	Nov. 1969 ^r	Jan. 1970 ^P	Dec. 1969 ^r	Jan. 1969
	Total						Materials and supplies					
All manufacturing industries, total..	96,165	95,905	95,416	96,379	95,475	88,905	29,425	29,364	29,157	29,592	29,690	28,203
Durable goods industries, total.....	63,984	63,550	63,076	63,852	63,106	57,879	17,663	17,572	17,194	17,619	17,711	16,706
Stone, clay, and glass products.....	2,488	2,483	2,471	2,493	2,431	2,289	809	796	770	806	806	731
Primary metals.....	8,170	8,052	8,009	8,282	8,244	7,528	2,927	2,824	2,771	2,962	3,004	2,800
Machinery (electrical and nonelectrical).	22,670	22,526	22,407	22,547	22,335	20,079	5,563	5,556	5,456	5,509	5,549	4,862
Transportation equipment.....	15,613	15,561	15,388	15,657	15,486	14,076	3,210	3,293	3,078	3,241	3,288	3,348
All other durable goods industries.....	15,043	14,928	14,801	14,873	14,610	13,907	5,154	5,103	5,119	5,101	5,064	4,965
Nondurable goods industries, total.....	32,181	32,355	32,340	32,527	32,369	31,026	11,762	11,792	11,963	11,973	11,979	11,497
Chemicals and allied products.....	6,591	6,634	6,566	6,674	6,635	5,977	2,256	2,281	2,279	2,264	2,292	2,102
Petroleum and coal products.....	2,283	2,274	2,197	2,260	2,262	2,068	513	503	499	497	496	455
Rubber and plastics products, n.e.c.....	1,927	1,888	1,871	1,936	1,882	1,811	600	600	612	596	589	570
All other nondurable goods industries....	21,380	21,559	21,706	21,657	21,590	21,170	8,393	8,408	8,573	8,616	8,602	8,370
	Work in process						Finished goods					
All manufacturing industries, total..	35,077	34,896	34,718	34,924	34,462	31,622	31,663	31,645	31,541	31,863	31,323	29,080
Durable goods industries, total.....	30,038	29,796	29,660	29,933	29,471	26,631	16,283	16,182	16,222	16,300	15,924	14,542
Stone, clay, and glass products.....	402	407	408	395	378	372	1,277	1,280	1,293	1,292	1,247	1,186
Primary metals.....	2,853	2,780	2,779	2,893	2,793	2,506	2,390	2,448	2,459	2,427	2,447	2,222
Machinery (electrical and nonelectrical).	10,742	10,702	10,650	10,724	10,598	9,611	6,365	6,268	6,301	6,314	6,188	5,606
Transportation equipment.....	10,787	10,683	10,742	10,762	10,645	9,289	1,616	1,585	1,568	1,654	1,553	1,439
All other durable goods industries.....	5,254	5,224	5,081	5,159	5,057	4,853	4,635	4,601	4,601	4,613	4,489	4,089
Nondurable goods industries, total.....	5,039	5,100	5,058	4,991	4,991	4,991	15,380	15,463	15,319	15,563	15,399	14,538
Chemicals and allied products.....	962	968	940	962	965	909	3,373	3,385	3,347	3,448	3,378	2,966
Petroleum and coal products.....	520	541	506	506	523	453	1,250	1,230	1,192	1,257	1,243	1,160
Rubber and plastics products, n.e.c.....	318	317	318	317	316	334	1,009	971	941	1,023	977	907
All other nondurable goods industries....	3,239	3,274	3,294	3,206	3,187	3,295	9,748	9,877	9,839	9,835	9,801	9,505

^PPreliminary.^rRevised.

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this



definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories--End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders Received and Unfilled Orders--

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.